

REMARKS

This Amendment is responsive to the Office Action mailed on June 7, 2004. Claims 1, 2, 5, 10, 13, 15, and 19 are amended. Claims 16 and 17 are cancelled. Claims 24-28 are new. Claims 1-15 and 18-28 are pending.

The Examiner has indicated that claim 17 contains allowable subject matter.

Claims 1-23 have been rejected as being indefinite. The claims are amended herein to overcome the indefiniteness rejection. Withdrawal of this rejection is respectfully requested.

Claims 1-6, 12-15, and 19-22 were rejected under 35 U.S.C. § 102(e) as being anticipated by Lee (US 6,713,936).

Claims 16 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of Sakamoto (US 6,707,178).

Claims 7-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of Perucchi (US 4,417,166).

Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of Nakagawa (US 5,170,082).

Claim 23 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of “level of ordinary skills of a worker in the art”.

Applicants respectfully traverse these rejections in view of the amended claims and the following comments.

Discussion of Amended Claims

Claim 1 is amended to include the subject matter of claim 16 and the allowable subject matter of claim 17. Claims 16 and 17 are cancelled to avoid duplication of claimed subject matter.

Claim 18 is amended to depend from claim 1, rather than cancelled claim 16.

Claims 1, 2, 5, 10, 13, 15, and 19 are amended to overcome the Examiner’s rejections under 35 U.S.C. § 112.

New claim 24 is directed to an electric micro-motor, and is based on a combination of original claims 1, 5, and 6.

New claim 25 specifies that the connecting element is laser welded to the second pole shoe carrier (see, e.g., Applicants' specification, page 10, last line).

New claim 26 is based on a combination of original claims 1 and 10, and specifies an electrically insulating glass-like coating comprising quartz (see, e.g., Applicants' specification, page 12, last paragraph).

New dependent claims 27 and 28 are based on original claims 8 and 11.

Applicants respectfully submit that, since amended claim 1 now contains allowable subject matter, claims 1-15 and 18-23 are in condition for immediate allowance.

Discussion of Lee in Connection with Claims 24 and 25

New claim 24 is directed to an electric micro-motor, and is based on a combination of original claims 1, 5, and 6. The Examiner rejected claims 5 and 6 as being anticipated by Lee. This rejection is respectfully traversed. An anticipation rejection requires that each and every element of the claimed invention as set forth in the claim be provided in the cited reference. See *Akamai Technologies Inc. v. Cable & Wireless Internet Services Inc.*, 68 USPQ2d 1186 (CA FC 2003), and cases cited therein. As discussed in detail below, Lee does not meet the requirements for an anticipation rejection.

With electric micro-motors such as claimed by Applicants in claim 24, precision alignment between the first and second pole shoes is critical for properly establishing the magnetic field. Accordingly, once the pole shoes are aligned, they must be securely fixed in position relative to one another. With Applicants' invention, this secure fixing of the positions of the pole shoes is accomplished by welding the connecting element (which is integral to the first pole shoe carrier) to the second pole shoe carrier. The weld may comprise a laser weld as set forth in claim 25.

Lee discloses a first pole shoe carrier (yoke 15) having a connecting element (inserting portion 15') formed integrally therewith. However, Lee does not disclose that the connecting

element 15' is securely fixed to the second pole shoe carrier 11. Lee is silent as to whether any secure connection is made between connecting element 15' and pole shoe carrier 11. Further, Lee is not directed to a micro-motor as claimed by Applicants.

It is known in the art to provide for press fitting or gluing of the connecting element of one pole shoe carrier to another pole shoe carrier. However, these prior art methods do not provide the necessary precision required in micro-motors. For example, a press fit connection may slip slightly during operation, and elements connected by gluing may move slightly during the curing phase, resulting in small errors in alignment. Such small errors in alignment may not be of a great concern in conventional sized motors, which may have a large margin of error as compared to micro-motors. In the art of micro-motors, such small errors in alignment may greatly affect the resulting magnetic field.

Applicants' claimed invention, which involves welding the connecting element to the second pole shoe carrier, overcomes the disadvantages of the prior art noted above by providing a secure and durable connection which maintains the precision alignment of the pole shoes in a micro-motor.

Lee does not disclose or remotely suggest that the connecting element is welded to the second pole shoe carrier in a micro-motor as claimed by Applicants in claims 24 and 25.

As Lee does not disclose each and every element of the invention as claimed, the rejections under 35 U.S.C. § 102(e) are believed to be improper, and withdrawal of the rejections is respectfully requested. See, *Akamai Technologies Inc.*, *supra*.

Discussion of Perucchi in Connection with Claims 26-28

New claim 26 is based on a combination of original claims 1 and 10, and specifies an electrically insulating glass-like coating comprising quartz. The Examiner has rejected claim 10 as being unpatentable in view of Lee in combination with Perucchi.

Perucchi discloses depositing a resin coating 9 on a center portion 7 of a core 6 of an electric motor (Col. 3, lines 4-10). Perucchi does not disclose or suggest the use of a glass-like coating comprising quartz as an electrically insulating coating on the pole shoe carriers or the

connecting element as claimed by Applicants. Such a quartz coating has a glass-like consistency and is harder and smoother than a resin layer. Therefore, a quartz layer is inherently more durable and wear resistant than a resin-type layer such as that disclosed in Perucchi.

Applicants respectfully submit that the present invention is not anticipated by and would not have been obvious to one skilled in the art in view of Lee, taken alone or in combination with Perucchi or any of the other prior art of record.

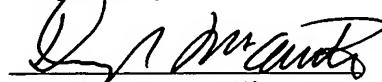
Further remarks regarding the asserted relationship between Applicants' claims and the prior art are not deemed necessary, in view of the amended claims and the foregoing discussion. Applicants' silence as to any of the Examiner's comments is not indicative of an acquiescence to the stated grounds of rejection.

Withdrawal of the rejections under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a) is therefore respectfully requested.

Conclusion

The Examiner is respectfully requested to reconsider this application, allow each of the pending claims and to pass this application on to an early issue. If there are any remaining issues that need to be addressed in order to place this application into condition for allowance, the Examiner is requested to telephone Applicants' undersigned attorney.

Respectfully submitted,



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